To: Mignone, Bryan[Bryan.Mignone@hq.doe.gov]; Marten, Alex[Marten.Alex@epa.gov] From: Newbold, Steve Sun 2/8/2015 4:47:39 PM Sent:

Subject: Re: FUND derivative wrt emissions 2011 10 25 dSCCdx.pdf

[about the premature send]

i've attached some old notes of mine from when Ex 5	
Ex 5	Ī
 very closely at these notes in a while, so i'm not sure if they will hold up to closer inspection. anyway, i hope this helps)
cheers,	

From: Newbold, Steve Sent: Sunday, February 08, 2015 11:38 AM To: Mignone, Bryan; Marten, Alex Subject: Re: FUND derivative wrt emissions	-
Hey Bryan,	
In case	

From: Mignone, Bryan < Bryan.Mignone@hq.doe.gov>

Sent: Friday, February 06, 2015 4:55 PM

To: Marten, Alex **Cc:** Newbold, Steve

Subject: RE: FUND derivative wrt emissions

Thanks – very interesting.

Ex 5

Ex 5

Ex 5

From: Marten, Alex [mailto:Marten.Alex@epa.gov]

Sent: Friday, February 06, 2015 1:46 PM

To: Mignone, Bryan **Cc:** Newbold, Steve

Subject: FUND derivative wrt emissions

Ex 5

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

To: Mignone, Bryan[Bryan.Mignone@hq.doe.gov]; Marten, Alex[Marten.Alex@epa.gov]

From: newbold.steve@gmail.com
Sent: Sun 2/8/2015 4:52:44 PM

Subject: Re: FUND derivative wrt emissions

sheesh, meant to say "sorry about the premature send" (my bluetooth keyboard is acting up)

Steve Newbold U.S. EPA

National Center for Environmental Economics (NCEE)

EPA West 4316T (MC1809T) 1200 Pennsylvania Ave NW Washington, DC 20460 (202)566-2293

On Sun, Feb 8, 2015 at 11:47 AM, Newbold, Steve < Newbold. Steve@epa.gov > wrote:

[about the premature send]

i've attached some old	notes of mine from when	Ex 5	
	Ex 5		
	Ex 5		

cheers,

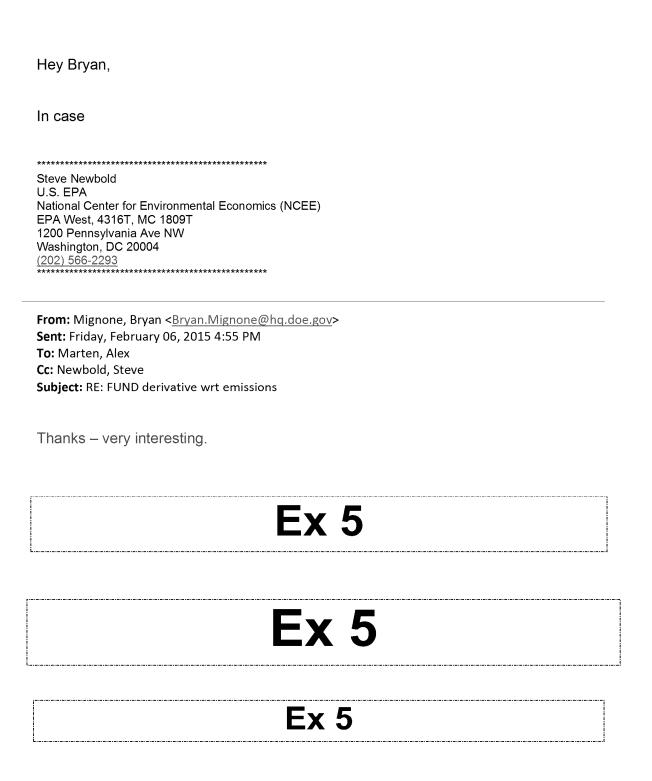
Steve Newbold U.S. EPA National Center for Environmental Economics (NCEE) EPA West, 4316T, MC 1809T 1200 Pennsylvania Ave NW Washington, DC 20004 (202) 566-2293

From: Newbold, Steve

Sent: Sunday, February 08, 2015 11:38 AM

To: Mignone, Bryan; Marten, Alex

Subject: Re: FUND derivative wrt emissions



From: Marten, Alex [mailto: Marten. Alex@epa.gov]

Sent: Friday, February 06, 2015 1:46 PM

To: Mignone, Bryan **Cc:** Newbold, Steve

Subject: FUND derivative wrt emissions

Ex 5

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

To: Newbold, Steve[Newbold.Steve@epa.gov]
Cc: Marten, Alex[Marten.Alex@epa.gov]

From: McGartland, Al

Sent: Sun 2/8/2015 5:15:36 PM

Subject: Re: anyone want to speak on SCC April 23 in Minnesota?

I think so. The more I thought about it the more I moved to the approach were we just

Ex 5

Sent from my iPhone

On Feb 8, 2015, at 11:17 AM, Newbold, Steve < Newbold. Steve@epa.gov > wrote:

That sounds fine to me. Shall we touch base tomorrow morning before we decide on a final course of action?

Steve Newbold U.S. EPA National Center for Environmental Economics (NCEE) EPA West, 4316T, MC 1809T 1200 Pennsylvania Ave NW Washington, DC 20004 (202) 566-2293

From: McGartland, Al

Sent: Sunday, February 08, 2015 9:11 AM

To: Newbold, Steve

Cc: Marten, Alex; Griffiths, Charles; Wolverton, Ann

Subject: Re: anyone want to speak on SCC April 23 in Minnesota?

Great. I'm going to speak to the guy on Monday. I'm on the agenda at some other workshops and feeling a little overexposed.

Regarding your other email. Ex 5

Ex 5

Sent from my iPhone

On Feb 8, 2015, at 7:27 AM, Newbold, Steve < Newbold.Steve@epa.gov > wrote:

Barring any pre-existing family commitments I would be happy to do this if no one else is eager to go. I will be giving a presentation on the SCC in New Haven at the end of this month, so I will have already prepared remarks on this topic. But I'm also happy to hand off my slides if someone else would like a turn.

Steve Newbold U.S. EPA National Center for Environmental Economics (NCEE) EPA West, 4316T, MC 1809T 1200 Pennsylvania Ave NW Washington, DC 20004 (202) 566-2293

From: McGartland, Al

Sent: Friday, February 06, 2015 5:11 PM

To: Newbold, Steve; Marten, Alex; Griffiths, Charles; Wolverton, Ann **Subject:** anyone want to speak on SCC April 23 in Minnesota?

I think the talk is to at a law conference. I will know more early next week.

To: Marten, Alex[Marten.Alex@epa.gov]

Cc: McGartland, Al[McGartland.Al@epa.gov]; Shouse, Kate[Shouse.Kate@epa.gov]; Fawcett,

Allen[Fawcett.Allen@epa.gov]

From: Barron, Alex

Sent: Tue 2/3/2015 6:19:46 PM

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Ex 5

Alex

From: Shouse, Kate

Sent: Tuesday, February 03, 2015 1:11 PM **To:** Fawcett, Allen; Barron, Alex; Marten, Alex

Cc: McGartland, Al

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Ex 5

Ex 5

Ex 5

Thanks, Kate

From: Fawcett, Allen

Sent: Tuesday, February 03, 2015 12:50 PM **To:** Barron, Alex; Marten, Alex; Shouse, Kate

Cc: McGartland, Al

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

We're working on edits now, Kate will send shortly.

From: Barron, Alex

Sent: Tuesday, February 03, 2015 12:47 PM

To: Marten, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Oar -

Do you have feedback?

From: Marten, Alex

Sent: Tuesday, February 03, 2015 12:38 PM

To: Barron, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Ex 5

The "supplementary information" section is the request for comment text verbatim, so I'm not sure we can retroactively edit that.

_ _

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Barron, Alex

Sent: Tuesday, February 03, 2015 12:18 PM

To: Marten, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: 2015 02 02 SCC RTC intro draft.docx

Ex 5

Ex 5 Give me a call if you have questions.

To: Marten, Alex[Marten.Alex@epa.gov]

From: Shouse, Kate

Sent: Tue 2/3/2015 6:27:42 PM

Subject: on a call - looking at interim, almost done (eom)

From: Marten, Alex

Sent: Tuesday, February 03, 2015 1:20 PM **To:** Shouse, Kate; Fawcett, Allen; Barron, Alex

Cc: McGartland, Al

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Ex 5

Ex 5

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Tuesday, February 03, 2015 1:11 PM **To:** Fawcett, Allen; Barron, Alex; Marten, Alex

Cc: McGartland, Al

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Ex 5

Ex 5

Thanks, Kate

From: Fawcett, Allen

Sent: Tuesday, February 03, 2015 12:50 PM **To:** Barron, Alex; Marten, Alex; Shouse, Kate

Cc: McGartland, Al

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

We're working on edits now, Kate will send shortly.

From: Barron, Alex

Sent: Tuesday, February 03, 2015 12:47 PM

To: Marten, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Oar -

Do you have feedback?

From: Marten, Alex

Sent: Tuesday, February 03, 2015 12:38 PM

To: Barron, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Ex 5 Ex 5

_ -

Alex L. Marten

phone: <u>(202)</u> 566-2301

email: marten.alex@epa.gov

From: Barron, Alex

Sent: Tuesday, February 03, 2015 12:18 PM

To: Marten, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: 2015 02 02 SCC RTC intro draft.docx



To: Marten, Alex[Marten.Alex@epa.gov]

From: Eric Hyman

Sent: Fri 1/30/2015 3:17:31 PM

Subject: Re: Social Cost of Carbon Methodology

Thank you.

On Fri, Jan 30, 2015 at 10:04 AM, Marten, Alex < Marten. Alex@epa.gov > wrote:

Hi Eric,

The methodology used to compute the SCC estimates is laid out in the 2010 TSD that accompanied the original set of estimates (link below). The 2013 update you reference was only a technical update in which the three integrated assessment models were updated to the newest versions being used in the peer reviewed literature. Since the methodology did not change, the 2013 TSD for the update referenced the original TSD for the readers interested in the methodology.

Specific details on the three integrated assessment models used in the estimation may be found in the references cited by the TSDs. These models have been documented in the scientific literature as they were developed over the last 20 years.

Replication instructions along with the USG input assumptions detailed in the 2010 TSD are also available upon request.

If you have a specific question I would be happy to try and help you out.

http://www.whitehouse.gov/sites/default/files/omb/inforeg/foragencies/Social-Cost-of-Carbon-for-RIA.pdf

- -

Alex L. Marten

Ex 6 - Alex Marten

email: marten.alex@epa.gov

From: Eric Hyman [mailto:ehyman@usaid.gov]

Sent: Friday, January 30, 2015 9:46 AM

To: Marten, Alex

Subject: Social Cost of Carbon Methodology

Where can I find detailed information on the the methodology used in the US social cost of carbon estimates? I have read the "Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866" and it seems to be a black box on how the calculations were made.

--

Dr. Eric L. Hyman

Economist

Economic Policy/Economic Governance

Bureau for Economic Growth, Education and Environment

U.S. Agency for International Development

1400 Pennsylvania Avenue, NW, Room 2.11.101

Washington, DC 20523

Tel: (202) 712-4898

--

Dr. Eric L. Hyman

Economist

Economic Policy/Economic Governance

Bureau for Economic Growth, Education and Environment

U.S. Agency for International Development

1400 Pennsylvania Avenue, NW, Room 2.11.101

Washington, DC 20523

Tel: (202) 712-4898

To: Marten, Alex[Marten.Alex@epa.gov]

From: Bowen, Jennifer

Sent: Tue 1/20/2015 7:33:28 PM Subject: RE: Quick review please!!!!

I already merged Elizabeth's, Ann's and Heather's comments. Can you send yours separately? Thanks and sorry for the hassle.

From: Marten, Alex

Sent: Tuesday, January 20, 2015 2:31 PM

To: Kopits, Elizabeth; Klemick, Heather; Griffiths, Charles; Shadbegian, Ron **Cc:** Wolverton, Ann; Evans, DavidA; Bowen, Jennifer; McGartland, Al

Subject: RE: Quick review please!!!!

A few comments on top of Elizabeth's.

Non-Responsive

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Kopits, Elizabeth

Sent: Tuesday, January 20, 2015 10:52 AM

To: Klemick, Heather; Griffiths, Charles; Shadbegian, Ron

Cc: Wolverton, Ann; Evans, DavidA; Marten, Alex

Subject: RE: Quick review please!!!!

Hi Heather,

I probably won't have time to read through this before 3pm, but I at least did a quick search on SCC and made a couple of relatively minor edits in footnote 10 on p. 39 – see attached. Feel free to fold these into your comments if you think it's worth it.

Thanks,

Elizabeth

From: Klemick, Heather

Sent: Tuesday, January 20, 2015 10:40 AM

To: Kopits, Elizabeth; Griffiths, Charles; Shadbegian, Ron

Cc: Wolverton, Ann; Evans, DavidA; Marten, Alex

Subject: FW: Quick review please!!!!

Forwarding this along in case folks have time and interest to comment today (before 3pm deadline).

From: Evans, DavidA

Sent: Tuesday, January 20, 2015 10:23 AM

To: Wolverton, Ann

Cc: Marten, Alex; Klemick, Heather Subject: FW: Quick review please!!!!

Hi Ann,

Are you in today? (Do other's know if Ann is in?). I suspect you will circulate this to see who has time to comment? I'd like to, but am trying to catch up after being out.

Dave

From: McGartland, Al

Sent: Tuesday, January 20, 2015 10:16 AM

To: DeMocker, Jim; Gunning, Paul; Fawcett, Allen; Evans, DavidA; Marten, Alex; Klemick, Heather; Wolverton, Ann; Harvey, Reid; Helfand, Gloria; Simon, Karl; Goffman, Joseph

Cc: Beauvais, Joel; Barron, Alex; Bowen, Jennifer

Subject: Quick review please!!!!

Colleagues,

We just received (within the last 2 hours) a draft chapter to the Economic Report of the President (written by CEA). Unfortunately, the deadline for comments is Tuesday. Fortunately, I'm guessing we won't have many, if any major concerns with this draft.

Please send your comments to Jennifer Bowen and me. We will prepare a single set of EPA comments and work with OAR/Joel B. to figure out the best way to transmit them.

We are setting a firm deadline of Tuesday at 3:00 pm. CEA did send this earlier but as with other technical stuff, it didn't reach OAR or OP. CEA was kind enough to give us a new window of opportunity for review.

To: Marten, Alex[Marten.Alex@epa.gov]
From: Ex 6 - Alex Marten
Sent: Tue 6/2/2015 5:13:26 PM

Subject: Fwd: Hope on adaptation: what is turning the page?

----- Forwarded message -----

From: Alex Marten < marten.alex@epa.gov >

Date: Wed, Feb 20, 2013 at 6:18 PM

Subject: Re: Hope on adaptation: what is turning the page? To: "Griffiths, Charles" < Griffiths. Charles@epa.gov>

Cc: "Marten, Alex" < Marten.Alex@epa.gov >, "Kopits, Elizabeth" < Kopits.Elizabeth@epa.gov >,

"Newbold, Steve" < Newbold. Steve@epa.gov>

That would be awesome if @Risk was already set up to do this easily. Please let me know if there is anything I can do to help.

On Wednesday, February 20, 2013, Griffiths, Charles wrote:

This is an excellent suggestion.	Ex 5
	Ex 5

From: Marten, Alex

Sent: Wednesday, February 20, 2013 2:27 PM **To:** Kopits, Elizabeth; Griffiths, Charles

Cc: Newbold, Steve

Subject: RE: Hope on adaptation: what is turning the page?



Alex Marten

marten.alex@epa.gov

From: Kopits, Elizabeth

Sent: Wednesday, February 20, 2013 1:48 PM

To: Griffiths, Charles

Cc: Newbold, Steve; Marten, Alex

Subject: RE: Hope on adaptation: what is turning the page?

This is very helpful, Charles. Thanks! Here's what I'm planning on sending (with all papers attached). Any objections?

EX5

Ex 5

Hope this helps a little!

Regards,

Elizabeth

From: Griffiths, Charles

Sent: Wednesday, February 20, 2013 1:35 PM

To: Kopits, Elizabeth

Cc: Newbold, Steve; Marten, Alex

Subject: RE: Hope on adaptation: what is turning the page?



Ex 5

Sadly, that is all I can find.

Charles

From: Kopits, Elizabeth

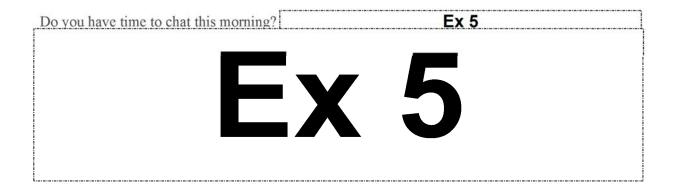
Sent: Wednesday, February 20, 2013 7:06 AM

To: Griffiths, Charles

Cc: Newbold, Steve; Marten, Alex

Subject: FW: Hope on adaptation: what is turning the page?

Charles,



Elizabeth

From: Gruenspecht, Howard [mailto:Howard.Gruenspecht@eia.gov]

Sent: Tuesday, February 19, 2013 6:41 PM

To: Kopits, Elizabeth

Subject: Hope on adaptation: what is turning the page?

Elizabeth:

The document circulated by OMB on SCC looks like a first class job. Congratulations to you and your colleagues!

One thing I am trying to understand are	Ex 5
	Ex 5

If you can provide papers, or at least excerpts of papers that are key to this issue it would be great. Don't worry too much if you can't – I'm not going to have much time to look into this very deeply anyway!

Thanks. Howard

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

Alex L. Marten

phone: (202) 566-2301
email: marten.alex@epa.gov

To: McGartland, Al[McGartland.Al@epa.gov]
Cc: Evans, DavidA[evans.davida@epa.gov]

From: Marten, Alex

Sent: Thur 6/25/2015 1:54:38 PM **Subject:** FW: 111(d) RIA - as of 2:45 06/24

ch 3 cost emissions - current.docx

ch0 exec summ.docx

ch1 intro.docx ch2 profile.docx

ch3a upstream methane.docx

ch4_benefits.docx

ch4a benefits appendix.docx

ch5 secondary econ impacts.docx

ch6 employment.docx

ch6a employment appendix.docx

ch7 exec orders.docx

ch8 net benefits.docx

ch9 federal plan.docx

Chapter 3 is the primary concern right now in terms of getting it ready for upload. They have addresses sed and removed some of our comments/questions/requests, but you will see a large number remain.

We think that there is still a bit of work to do in 5 but Dave (if he gets his computer) and I will knock that out today.

- -

Alex L. Marten

phone: <u>(202) 566-2301</u>

email: marten.alex@epa.gov

From: Marten, Alex

Sent: Wednesday, June 24, 2015 2:49 PM

To: McGartland, Al **Cc:** Evans, DavidA

Subject: 111(d) RIA - as of 2:45 06/24

Dave did remind me that when she gets back it would be a really good idea for Nathalie to look at the **Non-Responsive**

--

Alex L. Marten

phone: <u>(202) 566-2301</u>

email: marten.alex@epa.gov

To: Ferris, Ann[Ferris.Ann@epa.gov]

From: Marten, Alex

Sent: Thur 6/11/2015 7:26:54 PM Subject: RE: Oil and Gas RIA update

oil natural gas proposal nsps 2 draft ria OAR package.docx

_ _

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Ferris, Ann

Sent: Thursday, June 11, 2015 2:45 PM

To: Marten, Alex

Subject: FW: Oil and Gas RIA update

Hi Alex,

I don't think I have a copy of the employment chapter of the RIA - I'm sorry to bother you, but would you mind sending it along? I can look at it.

Or should I ask Alex Macpherson?

Thanks,

Ann

From: Macpherson, Alex

Sent: Monday, June 08, 2015 10:29 AM

To: Alsalam, Jameel; Shouse, Kate; Sarofim, Marcus; Kopits, Elizabeth; Ferris, Ann; Marten,

Alex

Cc: Weatherhead, Darryl

Subject: Oil and Gas RIA update

Team

	Non-Responsive	to have a complete oil and gas
package,	so here's where we're at.	
	a complete draft of RIA by Non-Responsive to be ving week.	ready to go to OMB probably sometime

This is really important for deadline reasons as well as the fact I will be on Annual Leave from 6/15 to 6/25. Jameel will covering for me while I am out, but my hope is that we have the draft done Friday then not much happens RIA-wise while I am away (knocking on wood). But of course Jameel knows this thing inside and out and can deal with things that come up. I will be semi-reachable but with a big time difference (6 hours behind).

Outstanding items:

Non-Responsive

Non-Responsive

- OP review. I know we addressed a lot of OP comments already so I'm not sure how we want to proceed here. Let you three (Elizabeth, Alex, Ann) do one big sweep through this week (preferable by Weds, so I have chance to response)? Please advise.

Let me know if you have any questions or if I'm missing anything here. OP: I really need your input on what kind of review you want to do.

Thanks Alex To: Shouse, Kate[Shouse.Kate@epa.gov]; Kopits, Elizabeth[Kopits.Elizabeth@epa.gov]

From: Marten, Alex

Sent: Thur 6/4/2015 10:28:35 PM

Subject: RE: 95th %tile text

Kate, did you and Elizabeth ever talk about this? I was out sick yesterday and in meetings pretty much all of today so I am a little behind on things.

I am around tomorrow if you want to talk about.

- -

Alex L. Marten

phone: <u>(202) 566-2301</u>

email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Tuesday, June 02, 2015 11:58 AM

To: Kopits, Elizabeth Cc: Marten, Alex Subject: 95th %tile text

Hi – Just wanted to clarify the	Ex 5
Ex	5
Ex 5	2 Looks like this may have been
one of Alex's suggested edits. Thanks.	

Ex 5

From: Kopits, Elizabeth

Sent: Tuesday, June 02, 2015 11:32 AM

To: Marsh, Karen; Vetter, Rick; Thundiyil, Karen Cc: Ward, Hillary; Cozzie, David; Fulcher, Charles; Shouse, Kate; Moore, Chris; Marten, Alex Subject: RE: Landfills supplemental NSPS - SC-CH4 insert Hi Karen et al. My apologies yet again, but as I am reviewing the RIA (still the advance copy I believe), I noticed a few things that would be good to update in the NSPS FRN to improve consistency across documents. Attached is the supplemental FRN plus the benefits insert from yesterday with a few more edits on each. I hope this helps. Please let me know if you would like to discuss. Thanks! Elizabeth From: Marsh, Karen Sent: Monday, June 01, 2015 4:25 PM To: Kopits, Elizabeth; Vetter, Rick; Thundivil, Karen Cc: Ward, Hillary; Cozzie, David; Fulcher, Charles; Shouse, Kate; Moore, Chris; Marten, Alex Subject: RE: Landfills supplemental NSPS - SC-CH4 insert Thanks Elizabeth. I'll get these changes incorporated. ************* Karen R. Marsh, PE

US EPA, OAQPS, Sectors Policies and Programs Division

Fuels and Incineration Group

109 TW Alexander Drive, Mail Code E143-05

Research Triangle Park, NC 27711

Direct: (919) 541-1065; email: marsh.karen@epa.gov

From: Kopits, Elizabeth

Sent: Monday, June 01, 2015 3:36 PM

To: Marsh, Karen; Vetter, Rick; Thundiyil, Karen

Cc: Ward, Hillary; Cozzie, David; Fulcher, Charles; Shouse, Kate; Moore, Chris; Marten, Alex

Subject: RE: Landfills supplemental NSPS - SC-CH4 insert

Hi Karen et al.,

Sorry for the multiple emails, but here is an update to the file I just sent you. It includes two more minor edits from Alex M.

Thanks!

Elizabeth

From: Kopits, Elizabeth

Sent: Monday, June 01, 2015 3:06 PM

To: Marsh, Karen; Vetter, Rick; Thundiyil, Karen

Cc: Ward, Hillary; Cozzie, David; Fulcher, Charles; Shouse, Kate; Moore, Chris; Marten, Alex

Subject: RE: Landfills supplemental NSPS - SC-CH4 insert

Hi Karen et al.,

Ex 5 Attached are some suggested edits that hopefully do not make it too much longer!

Please feel free to call me to discuss, or Kate and I can just iterate directly if that is easier (we are working together on the SCC/SCM section for a number of other rules anyway).

Thanks,

Elizabeth

Elizabeth Kopits, Ph.D.

National Center for Environmental Economics

Office of Policy, US EPA

1200 Pennsylvania Ave, NW, MC 1809T

Washington, DC 20460

(202) 566-2299

From: Marsh, Karen

Sent: Monday, June 01, 2015 1:31 PM

To: Vetter, Rick; Thundiyil, Karen; Kopits, Elizabeth

Cc: Ward, Hillary; Cozzie, David; Fulcher, Charles; Shouse, Kate

Subject: Landfills supplemental NSPS - SC-CH4 insert

Rick, Karen, and Elizabeth,

Attached for your review is language we intend to insert in the MSW Landfills NSPS Supplemental proposal related to the social-cost of methane. This text will go immediately following Table 1. Kate Shouse prepared the text and Charlie and I worked together to make a few minor edits, including only presenting the proposed option in Table 2 for consistency with what we have in the current version of the Emission Guidelines proposal.

Please review this text and let me know if you have any additional changes or edits and if this will suffice for discussion in the NSPS supplemental with further discussion available in the RIA.

Thanks,

Karen

Karen R. Marsh, PE

US EPA, OAQPS, Sectors Policies and Programs Division

Fuels and Incineration Group

109 TW Alexander Drive, Mail Code E143-05

Research Triangle Park, NC 27711

Direct: (919) 541-1065; email: marsh.karen@epa.gov

To: Shouse, Kate[Shouse.Kate@epa.gov]; Evans, DavidA[Evans.DavidA@epa.gov]; Weatherhead, Darryl[Weatherhead.Darryl@epa.gov]; Fellner, Christian[Fellner.Christian@epa.gov]; Risley, David[Risley.David@epa.gov]; CurryBrown, Amanda[CurryBrown.amanda@epa.gov]; Silverman, Steven[silverman.steven@epa.gov]; Roberts, Martha[Roberts.Martha@epa.gov]

Cc: Hoffman, Howard[hoffman.howard@epa.gov]; Hutson, Nick[Hutson.Nick@epa.gov]; Elman,

Barry[Elman.Barry@epa.gov]; Zenick, Elliott[Zenick.Elliott@epa.gov]

From: Marten, Alex

Sent: Thur 6/4/2015 6:39:16 PM

Subject: RE: draft narrative on 111(b) costs and benefits/RIA

I could do that but would have to leave at 3:00, though I think Dave would be able to stick around.

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Thursday, June 04, 2015 2:38 PM

To: Evans, DavidA; Marten, Alex; Weatherhead, Darryl; Fellner, Christian; Risley, David;

CurryBrown, Amanda; Silverman, Steven; Roberts, Martha Cc: Hoffman, Howard; Hutson, Nick; Elman, Barry; Zenick, Elliott Subject: RE: draft narrative on 111(b) costs and benefits/RIA

Is 2:30-3:30 tomorrow an option for everyone? I know that goes partially beyond the range given below but I'm not seeing a 1-hour block of time free for everyone.

From: Evans, DavidA

Sent: Thursday, June 04, 2015 2:08 PM

To: Shouse, Kate; Silverman, Steven; CurryBrown, Amanda; Roberts, Martha; Hoffman,

Howard; Hutson, Nick; Fellner, Christian; Weatherhead, Darryl; Risley, David

Cc: Elman, Barry; Marten, Alex; Zenick, Elliott

Subject: RE: draft narrative on 111(b) costs and benefits/RIA

We in OP have some constraints b/w 11 and 3 tomorrow. At the least, we aren't available from

11 to 12, and from 1:30 to 2:30.

Definitely would like to discuss.

D

From: Shouse, Kate

Sent: Thursday, June 04, 2015 12:18 PM

To: Silverman, Steven; CurryBrown, Amanda; Evans, DavidA; Roberts, Martha; Hoffman,

Howard; Hutson, Nick; Fellner, Christian; Weatherhead, Darryl; Risley, David

Cc: Elman, Barry; Marten, Alex; Zenick, Elliott

Subject: RE: draft narrative on 111(b) costs and benefits/RIA

This afternoon doesn't look good on Outlook calendars; I think 1:30 to 2 pm is only timeslot. Darryl and Christian, do you have any time tomorrow between 11 and 3? I can send out a meeting invitation once we have a critical mass; I have a call in that we can use. Tomorrow btwn 11 and 3 is also fine for me.

Hope you feel better today, Amanda.

From: Silverman, Steven

Sent: Thursday, June 04, 2015 12:07 PM

To: CurryBrown, Amanda; Evans, DavidA; Roberts, Martha; Hoffman, Howard; Hutson, Nick;

Fellner, Christian; Weatherhead, Darryl; Risley, David; Shouse, Kate

Cc: Elman, Barry; Marten, Alex; Zenick, Elliott

Subject: RE: draft narrative on 111(b) costs and benefits/RIA

Tomorrow betw 11 and 3 is good for me

From: CurryBrown, Amanda

Sent: Thursday, June 04, 2015 11:24 AM

To: Silverman, Steven; Evans, DavidA; Roberts, Martha; Hoffman, Howard; Hutson, Nick;

Fellner, Christian; Weatherhead, Darryl; Risley, David; Shouse, Kate

Cc: Elman, Barry; Marten, Alex; Zenick, Elliott

Subject: Re: draft narrative on 111(b) costs and benefits/RIA

I think this is a good idea. If possible, should include all above, including Christian (who can speak to the emission numbers), David & Kate (who did the benefits analysis), and Darryl (who will cover the RIA while I am out of the office tomorrow and part of next week).

I went home sick this morning and am not having much success using my calendar from webmail. Could someone schedule? I can call in anytime this afternoon or tomorrow between 11-3.

From: Silverman, Steven

Sent: Thursday, June 4, 2015 11:16 AM

To: Evans, DavidA; Roberts, Martha; Hoffman, Howard; Hutson, Nick **Cc:** Elman, Barry; Marten, Alex; CurryBrown, Amanda; Zenick, Elliott

Subject: RE: draft narrative on 111(b) costs and benefits/RIA

Can we schedule a meeting to talk some of this through? I'm not sure who the appropriate people are, but Martha should be one of them.

Non-Responsive

Non-Responsive

From: Evans, DavidA

Sent: Wednesday, June 03, 2015 7:56 PM

To: Silverman, Steven; Roberts, Martha; Hoffman, Howard; Hutson, Nick **Cc:** Elman, Barry; Marten, Alex; CurryBrown, Amanda; Zenick, Elliott

Subject: RE: draft narrative on 111(b) costs and benefits/RIA

Hi Steve,

So, my two cents on this given that things are moving quickly:

Non-Responsive

Non-Responsive

We will of course take a look at the comments you provide in the third bullet.

Ex 5

Thanks for flagging the last bullet. We'll look.

Non-Responsive

Hope this helps,

d

From: Silverman, Steven

Sent: Wednesday, June 03, 2015 7:02 PM

To: Evans, DavidA; Roberts, Martha; Hoffman, Howard; Hutson, Nick **Cc:** Elman, Barry; Marten, Alex; CurryBrown, Amanda; Zenick, Elliott **Subject:** RE: draft narrative on 111(b) costs and benefits/RIA

Thanks David. I have gone thru RIA, still pretty quickly, and put edits and cmmts into the Sharepoint version.

Non-Responsive

Ex 5

Non-Responsive

Ex 5

Non-Responsive

From: Evans, DavidA

Sent: Wednesday, June 03, 2015 5:45 PM

To: Silverman, Steven; Roberts, Martha; Hoffman, Howard; Hutson, Nick

Cc: Elman, Barry; Marten, Alex

Subject: RE: draft narrative on 111(b) costs and benefits

Thanks. When/if we talk we should loop in the RIA OAR lead, Amanda Curry-Brown.

d

From: Silverman, Steven

Sent: Wednesday, June 03, 2015 5:20 PM

To: Evans, DavidA; Roberts, Martha; Hoffman, Howard; Hutson, Nick

Cc: Elman, Barry; Marten, Alex

Subject: RE: draft narrative on 111(b) costs and benefits

Thanks. I'm going thru RIA and will have comments and questions noted there. Hope to finish at least some of that today

From: Evans, DavidA

Sent: Wednesday, June 03, 2015 4:30 PM

To: Silverman, Steven; Roberts, Martha; Hoffman, Howard; Hutson, Nick

Cc: Elman, Barry; Marten, Alex

Subject: RE: draft narrative on 111(b) costs and benefits

Steve,

Ex 5

Non-Responsive

Dave

From: Silverman, Steven

Sent: Tuesday, June 02, 2015 7:19 PM

To: Roberts, Martha; Hoffman, Howard; Hutson, Nick **Cc:** Elman, Barry; Evans, DavidA; Marten, Alex

Subject: RE: draft narrative on 111(b) costs and benefits

Ex 5

From: Roberts, Martha

Sent: Tuesday, June 02, 2015 8:30 AM

To: Silverman, Steven; Hoffman, Howard; Hutson, Nick

Cc: Elman, Barry; Evans, DavidA; Marten, Alex **Subject:** draft narrative on 111(b) costs and benefits

Dear all,

Non-Responsive

Non-Responsive

Thanks,

Martha

Ex 5

Non-Responsive

Ex 5

Ex 5

Martha Roberts

Counsel, Office of Policy

Environmental Protection Agency

Office: 202-564-2286

Ex 6 - Other

To: Roberts, Martha[Roberts.Martha@epa.gov]; Elman, Barry[Elman.Barry@epa.gov]; Evans,

DavidA[Evans.DavidA@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Fri 5/29/2015 10:07:05 PM

Subject: RE: (b) CBA recap

Not sure if any of my edits/additions are helpful, it is approaching 6pm on a Friday, so feel free to accept or discard as you see fit...

Non-Responsive

o The SC-CO2 estimates do not assign value to all of the important physical, ecological, and economic impacts of climate change recognized in the climate change literature, such that the IPCC concluded that "it is very likely that [SC-CO2 estimates] underestimate the damage costs" (as discussed in full in the RIA).

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Roberts, Martha

Sent: Friday, May 29, 2015 5:43 PM

To: Elman, Barry; Marten, Alex; Evans, DavidA

Subject: (b) CBA recap

Hey Dave and Alex – thanks for all the great thoughts. Let me know if this sounds like a reasonable summary:

Ex 5

Martha Roberts

Counsel, Office of Policy

Environmental Protection Agency

Office: 202-564-2286

Ex 6 - Other

To: Evans, DavidA[Evans.DavidA@epa.gov]; Roberts, Martha[Roberts.Martha@epa.gov]

Cc: Elman, Barry[Elman.Barry@epa.gov]

Bcc: alex.marten, Ex 6 - Alex Marten

From: Marten, Alex

Sent: Fri 5/29/2015 8:11:05 PM Subject: RE: FYI on steam standard

i'm here

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Evans, DavidA

Sent: Friday, May 29, 2015 4:11 PM **To:** Roberts, Martha; Marten, Alex

Cc: Elman, Barry

Subject: RE: FYI on steam standard

I'm here until 5. Not sure about Alex.

From: Roberts, Martha

Sent: Friday, May 29, 2015 3:59 PM To: Marten, Alex; Evans, DavidA

Cc: Elman, Barry

Subject: RE: FYI on steam standard

If 4 still works, I will stroll over now – could use the change of scenery.

From: Marten, Alex

Sent: Friday, May 29, 2015 2:51 PM **To:** Evans, DavidA; Roberts, Martha

Cc: Elman, Barry

Subject: RE: FYI on steam standard

I could talk at 4:00

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Evans, DavidA

Sent: Friday, May 29, 2015 12:33 PM

To: Roberts, Martha

Cc: Marten, Alex; Elman, Barry Subject: RE: FYI on steam standard

I do but need to leave by 5.

BTW, didn't intend to suggest that you shouldn't talk to OAR too about them, but honestly the most articulate folks about what all of the components show are Alex and me.

From: Roberts, Martha

Sent: Friday, May 29, 2015 12:31 PM

To: Evans, DavidA

Cc: Marten, Alex; Elman, Barry Subject: Re: FYI on steam standard

Either of you have any time after 3 pm today? (No worries if next week is easier)

Sent from my iPhone

On May 29, 2015, at 12:28 PM, Evans, DavidA < Evans. DavidA@epa.gov > wrote:

Non-Responsive

d

From: Marten, Alex

Sent: Friday, May 29, 2015 12:24 PM

To: Roberts, Martha; Evans, DavidA; Elman, Barry

Subject: RE: FYI on steam standard

Current working draft of the RIA attached.

Non-Responsive

Non-Responsive

Non-Responsive

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Roberts, Martha

Sent: Friday, May 29, 2015 12:20 PM **To:** Evans, DavidA; Elman, Barry

Cc: Marten, Alex

Subject: RE: FYI on steam standard

Dave, Alex,

Non-Responsive Non-Responsive

Non-Responsive

Thank you!

Martha

From: Evans, DavidA

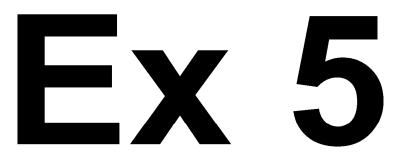
Sent: Friday, May 08, 2015 8:17 PM **To:** Elman, Barry; Roberts, Martha

Cc: Marten, Alex

Subject: FYI on steam standard

FYI. Adapted table from RIA. Not sure this was flagged to Joel/Alex (

Non-Responsive



From: Marten, Alex Thur 5/28/2015 10:05:56 PM Sent: Subject: RE: Temporal shifts in CO2 sorry, just noticing i missed this. we should remember this and fill in on the next draft Alex L. Marten phone: (202) 566-2301 email: marten.alex@epa.gov From: Evans, DavidA Sent: Thursday, May 28, 2015 10:08 AM To: Marten, Alex Subject: RE: Temporal shifts in CO2 Ex 5 Ex 5 From: Marten, Alex Sent: Thursday, May 28, 2015 10:04 AM To: Evans, DavidA Subject: RE: Temporal shifts in CO2 Maybe: Non-Responsive

To:

Bcc:

Evans, DavidA[Evans.DavidA@epa.gov]

Ex 6 - Alex Marten

alex.marten.

With the comment:

Ex 5

Ex 5

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Evans, DavidA

Sent: Thursday, May 28, 2015 9:55 AM

To: Marten, Alex

Subject: RE: Temporal shifts in CO2

Yep. More importantly, do you have any easy fix for this?

From: Marten, Alex

Sent: Thursday, May 28, 2015 9:54 AM

To: Evans, DavidA

Subject: RE: Temporal shifts in CO2

Correct, my $\mathbf{1}^{\text{st}}$ and $\mathbf{2}^{\text{nd}}$ should have been $\mathbf{2}^{\text{nd}}$ and $\mathbf{3}^{\text{rd}}.$

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Evans, DavidA

Sent: Thursday, May 28, 2015 9:52 AM

To: Marten, Alex

Subject: RE: Temporal shifts in CO2

Non-Responsive

d

From: Marten, Alex

Sent: Thursday, May 28, 2015 9:51 AM

To: Evans, DavidA

Subject: RE: Temporal shifts in CO2

Non-Responsive	
----------------	--

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Evans, DavidA

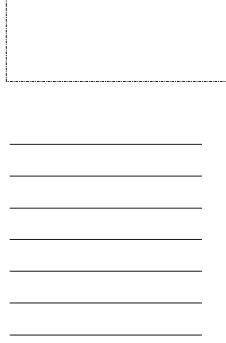
Sent: Thursday, May 28, 2015 9:18 AM

To: Marten, Alex

Subject: Temporal shifts in CO2

Given that the SCC changes over time, and differs from the private discount rate, we should make sure we given a little more context to this text in the future:

Ex 5



Ex 5

To: Deck, Leland[Deck.Leland@epa.gov]; Shouse, Kate[Shouse.Kate@epa.gov]; Evans,

DavidA[Evans.DavidA@epa.gov]; Risley, David[Risley.David@epa.gov]

Cc: Chappell, Linda[Chappell.Linda@epa.gov]; Keaveny, Brian[Keaveny.Brian@epa.gov]

Bcc: alex.marten. Ex 6 - Alex Marten

From: Marten, Alex

Sent: Mon 5/11/2015 9:25:04 PM

Subject: RE: 111(b) RIA WHERE I AM APPLYING CUA

Ex 5 Thanks for writing this out, Leland.

Alex L. Marten

phone: <u>(202) 566-2301</u>

email: marten.alex@epa.gov

From: Deck, Leland

Sent: Monday, May 11, 2015 4:50 PM

To: Shouse, Kate; Evans, DavidA; Marten, Alex; Risley, David

Cc: Chappell, Linda; Keaveny, Brian

Subject: RE: 111(b) RIA WHERE I AM APPLYING CUA

Leland Deck, Clean Air Markets Division

Voice: (202)343-9136 Email: Deck.Leland@EPA.gov

Office Location: Room 7231G, East-West Connector

Clinton Building East, Washington, DC

From: Shouse, Kate

Sent: Monday, May 11, 2015 4:36 PM

To: Evans, DavidA; Marten, Alex; Deck, Leland; Risley, David

Cc: Chappell, Linda; Keaveny, Brian

Subject: 111(b) RIA

Apologies for the barrage of emails, I need to run out the door and wanted to check in on a few details. I just finished updating the numbers in Ch 5 and David Risley is reviewing to make sure it's correct. We need input from **OP**, **Leland**, **and possibly Nick** on the following items before wrapping up – please see below.

Also, the page numbering in ch 5 is quirky. It restarts somewhere around 5-3 or 5-5, so there are two pg 5-1 and so on. Perhaps better to resolve once major editing completed?

Remaining questions:

RIA structure: My understanding for RIA structure was that we would present SCC and health values in Ch 3, cost/LCOEs in Ch 4, and the comparison in illustrative scenarios in Ch 5. Dave Evans, is your comment on pg 5-8 asking us to present the Section 4.5.3 tables and charts in both 4.5.3 and 5.5? Or do you want us to cut 4.5.3 and paste it in ch 5? Seems preferable to present once and then use cross-references.

To: Shouse, Kate[Shouse,Kate@epa.gov]: CurryBrown, Amanda[CurryBrown.amanda@epa.gov] Ex 6 - Alex Marten Bcc: alex.marten. From: Marten, Alex Wed 5/6/2015 8:39:02 PM Sent: Subject: RE: Ch. 5 - outstanding questions Thanks Kate Alex L. Marten phone: (202) 566-2301 email: <u>marten.alex@epa.gov</u> From: Shouse, Kate **Sent:** Wednesday, May 06, 2015 4:24 PM To: CurryBrown, Amanda Cc: Marten, Alex **Subject:** Re: Ch. 5 - outstanding questions :). I'll confirm with Bryan too, we have a d call tomorrow morning. Sent from my iPhone On May 6, 2015, at 4:17 PM, CurryBrown, Amanda < CurryBrown.amanda@epa.gov > wrote: Excellent – that seems conclusive enough for me © From: Shouse, Kate Sent: Wednesday, May 06, 2015 3:53 PM To: CurryBrown, Amanda; Marten, Alex; Risley, David; Evans, DavidA Subject: RE: Ch. 5 - outstanding questions

Re: Ex 5

Ex 5

The redline has since been accepted but the comment bubble remains.

Ex 5

From: CurryBrown, Amanda

Sent: Wednesday, May 06, 2015 3:26 PM

To: Marten, Alex; Shouse, Kate; Risley, David; Evans, DavidA

Subject: RE: Ch. 5 - outstanding questions

Thanks, Kate & Alex.

From: Marten, Alex

Sent: Wednesday, May 06, 2015 3:21 PM

To: Shouse, Kate; CurryBrown, Amanda; Risley, David; Evans, DavidA

Subject: RE: Ch. 5 - outstanding questions

My responses in green.

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Wednesday, May 06, 2015 3:02 PM

To: CurryBrown, Amanda; Risley, David; Marten, Alex; Evans, DavidA

Subject: RE: Ch. 5 - outstanding questions

Thanks, Amanda. Please see below for my responses. Alex Marten, quick question for you and Amanda on your Table 5-4 comment. David, can you check Tables 5-4 and 5-5 to make sure I'm not missing anything? I think we can remove the highlighting on those tables but wanted to confirm with you first. Thanks!

Ex 5

From: CurryBrown, Amanda Sent: Wednesday, May 06, 2015 12:29 PM To: Shouse, Kate; Risley, David; Marten, Alex; Evans, DavidA Subject: Ch. 5 - outstanding questions I just went through Ch. 5 and Ex 5 Here are the items that are either still outstanding or are things that I wasn't sure were finished (seems to be mostly the latter): Non-Responsive

Amanda Curry Brown

Health and Environmental Impacts Division

U.S. EPA Office of Air Quality Planning and Standards

919.541.3808

CurryBrown.Amanda@epa.gov

To: Evans, DavidA[Evans.DavidA@epa.gov]; CurryBrown,

Amanda[CurryBrown.amanda@epa.gov]

Bcc: alex.marten. Ex 6 - Alex Marten

From: Marten, Alex

Sent: Wed 4/29/2015 7:38:25 PM Subject: RE: chapter 5 comments

Amanda & Dave,

Non-Responsive

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Evans, DavidA

Sent: Wednesday, April 29, 2015 3:29 PM

To: CurryBrown, Amanda

Cc: Marten, Alex

Subject: RE: chapter 5 comments

Thanks.

From: CurryBrown, Amanda

Sent: Wednesday, April 29, 2015 3:22 PM

To: Evans, DavidA Cc: Marten, Alex

Subject: RE: chapter 5 comments

I will ask her to – they are supposed to talk tomorrow sometime, but may try to get her to check in earlier.

From: Evans, DavidA

Sent: Wednesday, April 29, 2015 2:54 PM

To: CurryBrown, Amanda

Cc: Marten, Alex

Subject: RE: chapter 5 comments

Okay. Is Darryl following up with Jeb? We could have Al prod Jeb, but maybe better to start w/ Darryl as you are lead?

Barron will call immediately if we make him aware of this delay, and he is going to ask soon.

Dave

From: CurryBrown, Amanda

Sent: Wednesday, April 29, 2015 1:48 PM

To: Evans, DavidA Cc: Marten, Alex

Subject: RE: chapter 5 comments

Assuming you don't mean the previous ETD's that have come and gone already.

From: CurryBrown, Amanda Sent: Wednesday, April 29, 2015 1:48 PM To: Evans, DavidA Cc: Marten, Alex

Subject: RE: chapter 5 comments

No. He told me he'd have to get back to me.

From: Evans, DavidA

Sent: Wednesday, April 29, 2015 1:46 PM

To: CurryBrown, Amanda

Cc: Marten, Alex

Subject: RE: chapter 5 comments

So, just to clarify, Leland gave you no estimated time of delivery?

(Multitasking)

d

From: Evans, DavidA

Sent: Wednesday, April 29, 2015 12:50 PM

To: CurryBrown, Amanda

Cc: Marten, Alex

Subject: RE: chapter 5 comments

I have a 1pm, but will follow up after.

Dave

From: CurryBrown, Amanda

Sent: Wednesday, April 29, 2015 12:43 PM

To: Evans, DavidA

Subject: RE: chapter 5 comments

I talked to Leland – he said he was

Non-Responsive

Non-Responsive

From: CurryBrown, Amanda

Sent: Wednesday, April 29, 2015 12:05 PM

To: Evans, DavidA

Subject: RE: chapter 5 comments

Nothing yet from Jeb or Leland.

From: Evans, DavidA

Sent: Wednesday, April 29, 2015 9:46 AM

To: CurryBrown, Amanda

Subject: RE: chapter 5 comments

Sounds good.

I'm trying to prevent 8 layers of management asking about where something is and trying to
assure that folks are left alone to just write

From: CurryBrown, Amanda

Sent: Wednesday, April 29, 2015 9:43 AM

To: Evans, DavidA

Subject: RE: chapter 5 comments

analysis	Non-Responsive), so hopefully will get everything
before too long.		
T.2. 1		
It's been a while	since I've looked at them but I rem	ember the comments on the
It's been a while		
It's been a while		
It's been a while	since I've looked at them but I rem	

From: Evans, DavidA

Sent: Wednesday, April 29, 2015 9:32 AM

To: CurryBrown, Amanda

Subject: RE: chapter 5 comments

First news, and then a response. I exchanged vmails w/ Jeb. He is going to follow up with Leland and then you to convey status. He didn't sound panicked, but knew that we needed Chapter 4. Let me know if you don't hear from him this morning please let me know.

Also, I also meant to ask you about response to comments, and specifically if there were any

Non-Responsive

Non-Responsive

Your short answer sounds good. Below are some long thoughts that don't change that, but we might want to refer back to.

Non-Responsive

Non-Responsive

Non-Responsive

d

From: CurryBrown, Amanda

Sent: Wednesday, April 29, 2015 7:42 AM

To: Evans, DavidA

Subject: chapter 5 comments

Non-Responsive

Non-Responsive

Amanda Curry Brown

Health and Environmental Impacts Division

U.S. EPA Office of Air Quality Planning and Standards

919.541.3808

CurryBrown.Amanda@epa.gov

Bcc:	alex.marten.	Ex	6 - Alex Marten			
From:	Marten, Alex					
Sent:	Tue 4/14/2019		Oten and Death ation	D. In		
		cy review of Dol sits of stream pro		Rule		
2015 04	10 COZ Dellel	its of stream pro	nection_rule.pui			
No prol	hlem Atta	ched is a qu	ick		Ex 5	
(NO pro-	orem. Accar	-11Cu 13 u qu	<u> </u>			
			Ex 5			
				,		
- 1	L				Ex 5	
_ I nave	been work	ing under th	e assumption] [
EX 5	, do you kr	now if I am	wrong on tha	at assumpt:	ion?	
Alex L	. Marten					
phone:	(202) 566-	-2301				
	marten.ale					
	mar centure	57.(a.c.p.a.r. <u>B</u> 0.r.				
E C	1					
	house, Kate	4 0015 2 56 DI	<i>x</i>			
		.4, 2015 3:56 PN	Λ			
	cett, Allen					
	ten, Alex					
Subject:	RE: Interager	ncy review of Do	oI Stream Prote	ction Rule		
Thanks,	Allen					
* *************************************	A. A. A. W. Z. D. S					
Alex co	n vou koon na	posted on what			Ex 5	
Alex, car	n you keep us	posted on what	**********************		FV A	***************************************
			Ex :	5		
				J		
<u></u>						

Shouse, Kate[Shouse.Kate@epa.gov]; Fawcett, Allen[Fawcett.Allen@epa.gov]

To:

From: Fawcett, Allen

Sent: Monday, April 13, 2015 5:44 PM **To:** Shouse, Kate; Alsalam, Jameel

Subject: Fwd: Interagency review of DoI Stream Protection Rule

Fyi

Allen A. Fawcett, Ph.D.

Chief, Climate Economics Branch

U.S. EPA

O: 202 343-9436

Ex 6 - Other

Begin forwarded message:

From: "Harvey, Reid" < Harvey.Reid@epa.gov>

Date: April 13, 2015 at 4:38:23 PM EDT

To: "Stenhouse, Jeb" < Stenhouse.Jeb@epa.gov >, "Fawcett, Allen" < Fawcett.Allen@epa.gov >, "Gunning, Paul" < Gunning.Paul@epa.gov >

Subject: FW: Interagency review of DoI Stream Protection Rule

FYI

From: Jenkins, Robin

Sent: Monday, April 13, 2015 4:34 PM

To: Lamson, Amy; Fann, Neal; Harvey, Reid; Hubbell, Bryan

Cc: Ferris, Ann; McGartland, Al; Marten, Alex

Subject: Interagency review of DoI Stream Protection Rule

Amy, Neal, Reid and Bryan:

DoI has a proposed Stream Protection rule

Non-Responsive

undergoing interagency review. NCEE is reviewing twith OW who is reviewing the package. (The Army A primary		1
Ex 5		
Just wanting to let you know. Please let us know if you	ou want more information.	
Robin		
Robin Jenkins		
Senior Economist		
National Center for Environmental Economics		
US EPA		
Washington DC		
202-566-2292		

To: Rowell, Arden[karowell@illinois.edu]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Mon 4/13/2015 8:38:36 PM

Subject: RE: hi! and quick question on community/cultural artifact valuation in the SCC

Hi Arden,

My turn for question. Do you have any good examples of rules that have been vacated or remanded due to APA issues w/ the BCA? Specifically, ones that weren't associated with the SCC.

Thanks.

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Rowell, Arden [mailto:karowell@illinois.edu]

Sent: Monday, April 06, 2015 12:49 PM

To: Marten, Alex

Subject: RE: hi! and quick question on community/cultural artifact valuation in the SCC

Neat! I'll go look. Thanks Alex!

Arden Rowell

Associate Professor and Richard W. and Marie L. Corman Scholar

University of Illinois College of Law

karowell@illinois.edu

http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1610155

From: Marten, Alex [Marten.Alex@epa.gov]
Sent: Monday, April 06, 2015 11:26 AM

To: Rowell, Arden

Subject: RE: hi! and quick question on community/cultural artifact valuation in the SCC

Ex 5

It reminded me that the EU through the PESETA project has done some work w/ tourism, but I'm not sure if they have addressed this issue in there.

http://peseta.jrc.ec.europa.eu/

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Rowell, Arden [mailto:karowell@illinois.edu]

Sent: Monday, April 06, 2015 12:22 PM

To: Marten, Alex

Subject: RE: hi! and quick question on community/cultural artifact valuation in the SCC

Awesome--thanks so much. Particularly interesting re: the "everything else" box in the most recent DICE version. Seems like may be more opportunities to incorporate some sort of "special cultural value" measure as the models get better at determining localized & regional impact. Could look at tourist dollars spent or something. Apparently Mastercard creates a list every year of "most visited cities" http://newsroom.mastercard.com/wp-

content/uploads/2014/07/Mastercard GDCI 2014 Letter Final 70814.pdf (Bangkok pretty much ties London--who would have thought?). Anyway, thanks again--super helpful!

PS What about Venice! Venice!!

Arden Rowell

Associate Professor and Richard W. and Marie L. Corman Scholar

University of Illinois College of Law

karowell@illinois.edu

http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1610155

From: Marten, Alex [Marten.Alex@epa.gov]
Sent: Monday, April 06, 2015 11:05 AM

To: Rowell, Arden

Subject: RE: hi! and quick question on community/cultural artifact valuation in the SCC

version of the DICE model Nordhaus had a human settlements category which he acknowledged was speculative, but this is the type of thing he was trying to capture. In the most recent version of DICE he has a catch all category which he might argue it trying to capture an adjustment for hard to measure things such as this. FUND does not account for this, and I don't recall any of the PAGE literature talking about this issue.

I hope that helps.

P.S. Your example made me smile because the Italians are really big on this point in general (not just wrt the IAMs) and bring it up all the time at international events.

- -

Alex L. Marten

phone: (202) 566-2301
email: marten.alex@epa.gov

From: Rowell, Arden [mailto:karowell@illinois.edu]

Sent: Monday, April 06, 2015 11:57 AM

To: Marten, Alex

Subject: hi! and quick question on community/cultural artifact valuation in the SCC

Hi Alex! Hope all's well. Quick question: can you think of any examples within FUND, DICE, or PAGE of valuation of communities, groups, or cultural artifacts rather than individualized damage? So, e.g.,

suppose that someone thought that the culture of the Lapplanders was important separate from individualized harm to individual Lapplanders, or that Venice was important for cultural reasons that go beyond harm to Venetians. Anything in any of the IAMs on that? I was thinking there wasn't anything on any of that stuff in any of the models (and I guess there could be double-counting concerns if there were), but figured you'd be the person to know.

All best,

Arden Rowell

Associate Professor and Richard W. and Marie L. Corman Scholar

University of Illinois College of Law

karowell@illinois.edu

http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1610155

To: Ferris, Ann[Ferris.Ann@epa.gov]; McGartland, Al[McGartland.Al@epa.gov]; Shadbegian,

Ron[Shadbegian.Ron@epa.gov]; Jenkins, Robin[Jenkins.Robin@epa.gov]

Cc: Durham, Natalie[Durham.Natalie@epa.gov]

Bcc: Ex 6 - Alex Marten

From: Marten, Alex

Sent: Fri 4/10/2015 10:03:40 PM

Subject: RE: notes for monday's briefing: DOI stream protection rule

2015 04 10 co2 benefits of stream protection rule.pdf

If anyone is so inclined to read the climate benefits memo I've attached a slightly updated version.

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Ferris, Ann

Sent: Friday, April 10, 2015 4:16 PM

To: Marten, Alex; McGartland, Al; Shadbegian, Ron; Jenkins, Robin

Cc: Durham, Natalie

Subject: notes for monday's briefing: DOI stream protection rule

Hi all,

I've attached 3 documents / sets of notes for our briefing Monday, on the DOI stream protection rule:

- Non-Responsive
- (*-*) i.....
- (3) Alex's SCC calcs.

These will form the basis for our discussion Monday and written NCEE comments. We'll plan to write them up after Monday's briefing & send early next week.
Thanks,
Ann
564-3207

To: Shouse, Kate[Shouse.Kate@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Thur 3/12/2015 8:06:40 PM Subject: RE: ch4 public comments

Thanks Kate this is great. I appreciate you taking the time to look this up. I think after the previous conversation you see why it would have been a useful tp if it had been the case, but I think at this point there is no reason to become >95% sure.

Thanks again.

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Thursday, March 12, 2015 2:32 PM

To: Marten, Alex

Subject: RE: ch4 public comments

Sorry this has taken so long. The short answer is that I'm 95% confident that we have not received any comments on Marten et al (2014) yet. I'd be surprised if there were any but would need more time to search 111(d) comments before making this assertion with upper management.

The longer answer is that 111(d) is the only rulemaking for which we could have received these comments and so far I have not found any mention of Marten et al. I checked the summary of public comments on benefits/costs compiled by RTI and did not find anything. However, RTI is still working on that compilation (80% done), so there is a small chance there is a comment on it that is not in there yet.

I've listed below the searches that I did in case that's useful:

- (1) Regulations.gov searched "Marten" in the 111(d) comment submissions. (FYI, one of your 2011 SCC papers is referenced but no hits on the non-CO2 work)
- (2) Reviewed the letter on SCC submitted by EDF, NRDC, NYU, and UCS. Nothing really on non-CO2, they focused more on a strong recommendation to enumerate the CO2 omitted damages in the final rule.
- (3) Reviewed EPRI's SCC comments, nothing on non-CO2.
- (4) Came across some letters from Ctr for Biological Diversity, didn't see much on SCC.
- (5) Searched comment summary from RTI not seeing much on non-CO2 in general.

Let me know if this is something we need to be more confident about this week. Thanks!

From: Marten, Alex

Sent: Thursday, March 12, 2015 12:30 PM

To: Shouse, Kate

Subject: RE: ch4 public comments

Around June 3rd.

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Thursday, March 12, 2015 12:28 PM

To: Marten, Alex

Subject: RE: ch4 public comments

That's a good question. It's possible that someone may have commented on this in the EGU 111(d), which closed in December. I'll take a look – haven't gone through all of those comments yet. When did Marten al (2014) get published online?

From: Marten, Alex

Sent: Thursday, March 12, 2015 12:22 PM

To: Shouse, Kate

Subject: ch4 public comments

Kate, we haven't received any public comments related to the Marten et al. (2014) CH4 estimates, correct?

Thanks.

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

To: Evans, DavidA[Evans.DavidA@epa.gov]; Simpson, David[Simpson.David@epa.gov]

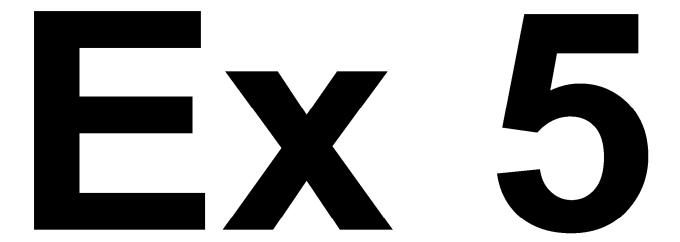
Cc: Wolverton, Ann[Wolverton.Ann@epa.gov]; Garbaccio, Richard[Garbaccio.Richard@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Wed 3/4/2015 8:34:10 PM

Subject: RE: A somewhat more serious inquiry regarding economy-wide modeling



"While Pindyck's observations about the empirical weaknesses of IAMs or calculations of the SCC are worthy of careful study, the conclusion that IAMs are therefore useless fundamentally misconceives the enterprise. IAMs and the SCC are conceptual frameworks for dealing with highly complex, non-linear, dynamic, and uncertain systems. The human mind is incapable of solving all the equations simultaneously, and modeling allows making "If..., then..." analyses of the impacts of different factors. The models have provided important insights into many aspects of climate-change policy."

- -

Alex L. Marten

phone: <u>(202)</u> 566-2301

email: marten.alex@epa.gov

From: Evans, DavidA

Sent: Wednesday, March 04, 2015 3:01 PM

To: Simpson, David

Cc: Wolverton, Ann; Garbaccio, Richard; Marten, Alex

Subject: RE: A somewhat more serious inquiry regarding economy-wide modeling

Ex 5

From: Simpson, David

Sent: Wednesday, March 04, 2015 2:59 PM

To: Evans, DavidA

Cc: Wolverton, Ann; Garbaccio, Richard; Marten, Alex

Subject: A somewhat more serious inquiry regarding economy-wide modeling

Hey, economy-wide modelers,

My correspondence with Dave regarding the helpful suggestions you've received from some other corners reminded me that I wanted to ask you all another question.

Ex 5

Is there an answer I'd understand?

David

To: Sherwood, Todd[sherwood.todd@epa.gov]; Shouse, Kate[Shouse.Kate@epa.gov]

Cc: Davidson, Ken[Davidson.Ken@epa.gov]

Ex 6 - Alex Marten Bcc: alex.marten.

From: Marten, Alex

Mon 2/23/2015 8:20:39 PM Sent: Subject: RE: RIA uses 2013 SCC Numbers

Sounds good. Thanks to you all for your patience in getting this straight.

Alex L. Marten

phone: <u>(202)</u> 566-2301 email: marten.alex@epa.gov

From: Sherwood, Todd

Sent: Monday, February 23, 2015 3:14 PM

To: Shouse, Kate; Marten, Alex

Cc: Davidson, Ken

Subject: RE: RIA uses 2013 SCC Numbers

Ex 5

Thanks to everyone.

From: Shouse, Kate

Sent: Monday, February 23, 2015 2:49 PM To: Sherwood, Todd; Marten, Alex

Cc: Davidson, Ken

Subject: RE: RIA uses 2013 SCC Numbers



Please let me know if you have any concerns or questions – happy to talk on the phone if easier to clarify. Thanks, Kate

From: Sherwood, Todd

Sent: Monday, February 23, 2015 9:47 AM

To: Shouse, Kate; Marten, Alex

Cc: Davidson, Ken

Subject: RE: RIA uses 2013 SCC Numbers

Kate & Alex,



Thanks yet again.

From: Shouse, Kate

Sent: Wednesday, February 18, 2015 3:02 PM

To: Sherwood, Todd

Subject: RE: RIA uses 2013 SCC Numbers

Thanks, that sounds good © I haven't heard from Ken either and was also assuming that's he's out today.

From: Sherwood, Todd

Sent: Wednesday, February 18, 2015 2:59 PM

To: Shouse, Kate; Marten, Alex

Cc: Davidson, Ken; Li, Jia; Klemick, Heather Subject: RE: RIA uses 2013 SCC Numbers

Ex 5

must be out of the office since he has not weighed in on any of this).

From: Shouse, Kate

Sent: Wednesday, February 18, 2015 2:40 PM

To: Sherwood, Todd; Marten, Alex

Cc: Davidson, Ken; Li, Jia; Klemick, Heather Subject: RE: RIA uses 2013 SCC Numbers



From: Sherwood, Todd

Sent: Wednesday, February 18, 2015 12:22 PM

To: Shouse, Kate; Marten, Alex

Cc: Davidson, Ken; Li, Jia; Klemick, Heather **Subject:** RE: RIA uses 2013 SCC Numbers



Again, sorry for being so detailed about this.

From: Shouse, Kate

Sent: Wednesday, February 18, 2015 12:00 PM

To: Marten, Alex; Sherwood, Todd

Cc: Davidson, Ken; Li, Jia; Klemick, Heather **Subject:** RE: RIA uses 2013 SCC Numbers

Todd, does this give you what you need or would it be helpful to talk on the phone today?

From: Marten, Alex

Sent: Tuesday, February 17, 2015 11:31 AM

To: Sherwood, Todd; Shouse, Kate

Cc: Davidson, Ken; Li, Jia; Klemick, Heather **Subject:** Re: RIA uses 2013 SCC Numbers

Hi Todd,



Kate, what do you think?

- -

Alex Marten

marten.alex@epa.gov

From: Sherwood, Todd

Sent: Tuesday, February 17, 2015 10:59 AM

To: Marten, Alex; Shouse, Kate

Cc: Davidson, Ken; Li, Jia; Klemick, Heather Subject: RE: RIA uses 2013 SCC Numbers

Alex/Kate,



Thank you.

Todd

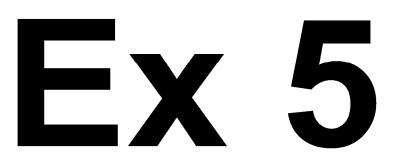
From: Marten, Alex

Sent: Tuesday, February 17, 2015 10:18 AM

To: Shouse, Kate

Cc: Sherwood, Todd; Davidson, Ken; Li, Jia; Klemick, Heather

Subject: Re: RIA uses 2013 SCC Numbers



I'm happy to discuss this further.

- -

Alex Marten

marten.alex@epa.gov

From: Shouse, Kate

Sent: Tuesday, February 17, 2015 9:43 AM

To: Marten, Alex

Cc: Sherwood, Todd; Davidson, Ken; Li, Jia; Klemick, Heather

Subject: Fwd: RIA uses 2013 SCC Numbers



Thanks, Kate

----- Forwarded message

From: Shouse, Kate <Shouse.Kate@epa.gov>Date: Tue, Feb 17, 2015 at 9:29 AM Subject: Fwd: RIA uses 2013 SCC Numbers

To: Kate Shouse Ex 6 - Kate Shouse

Sent from my iPhone

Begin forwarded message:

From: "Sherwood, Todd" < sherwood.todd@epa.gov>

Date: February 17, 2015 at 9:16:20 AM EST

To: "Davidson, Ken" < Davidson.Ken@epa.gov >, "Li, Jia" < Li.Jia@epa.gov >,

"Shouse, Kate" <<u>Shouse.Kate@epa.gov</u>>
Cc: "Choi, David" <<u>Choi.David@epa.gov</u>>
Subject: FW: RIA uses 2013 SCC Numbers

The issue here is as follows:



From: James.MacIsaac@dot.gov [mailto:James.MacIsaac@dot.gov]

Sent: Friday, February 13, 2015 5:17 PM

To: Choi, David; Davidson, Ken; Sherwood, Todd

Cc: Spears, Matthew; Moulis, Charles; james.tamm@dot.gov;

<u>Analiese.Marchesseault@dot.gov; ryan.hagen@dot.gov; rebecca.yoon@dot.gov;</u>

Coralie.Cooper@dot.gov; Kevin.Green@dot.gov; Don.Pickrell@dot.gov; Ryan.Keefe@dot.gov;

Walter.Gazda@dot.gov; russell.krupen@dot.gov; megan.brown@dot.gov

Subject: FW: RIA uses 2013 SCC Numbers

David, Todd, & Ken,



Thanks,

Jamie

James D. MacIsaac Jr. (Jamie)

General Engineer

Fuel Economy Division, NVS-132

Office of International Policy, Fuel Economy & Consumer Programs

U.S. Department of Transportation

National Highway Traffic Safety Administration (NHTSA)

West Building, W43-444

1200 New Jersey Ave, SE

Washington, DC 20590

Tel: (202) 366-9108

Fax: <u>(202) 493-2990</u>

james.macisaac@dot.gov

www.NHTSA.gov

From: Riley-Gilbert, Marybeth [mailto:Marybeth.Riley-Gilbert@icfi.com]

Sent: Wednesday, February 11, 2015 2:50 PM

To: Hagen, Ryan (NHTSA); MacIsaac, James (NHTSA); Venezia, John

Cc: Powers, Sarah; Diller, Elizabeth; Cooper, Coralie (VOLPE); Krupen, Russell (NHTSA);

Brown, Megan (NHTSA); Marchesseault, Analiese (NHTSA)

Subject: RE: RIA uses 2013 SCC Numbers

Hi All-

EX 5

To: Shouse, Kate[Shouse.Kate@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Mon 2/23/2015 3:49:31 PM **Subject:** RE: RIA uses 2013 SCC Numbers

Hi Kate,

Can you give me a call about this when you get a chance.

This is in fact what we discussed over email, but seeing this reminded me of another issue for which we (ncee) don't have a strong opinion, but wanted to get your opinion before we get back to Todd.

Thanks.

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Monday, February 23, 2015 10:40 AM

To: Sherwood, Todd

Cc: Marten, Alex; Davidson, Ken

Subject: Re: RIA uses 2013 SCC Numbers

Ex 6 - Other

Kate

Sent from my iPhone

On Feb 23, 2015, at 9:47 AM, "Sherwood, Todd" <<u>sherwood.todd@epa.gov</u>> wrote:



Thanks yet again.

T

From: Shouse, Kate

Sent: Wednesday, February 18, 2015 3:02 PM

To: Sherwood, Todd

Subject: RE: RIA uses 2013 SCC Numbers

Thanks, that sounds good © I haven't heard from Ken either and was also assuming that's he's out today.

From: Sherwood, Todd

Sent: Wednesday, February 18, 2015 2:59 PM

To: Shouse, Kate; Marten, Alex

Cc: Davidson, Ken; Li, Jia; Klemick, Heather Subject: RE: RIA uses 2013 SCC Numbers

Ex 5

he must be out of the office since he has not weighed in on any of this).

From: Shouse, Kate

Sent: Wednesday, February 18, 2015 2:40 PM

To: Sherwood, Todd; Marten, Alex

Cc: Davidson, Ken; Li, Jia; Klemick, Heather Subject: RE: RIA uses 2013 SCC Numbers



From: Sherwood, Todd

Sent: Wednesday, February 18, 2015 12:22 PM

To: Shouse, Kate; Marten, Alex

Cc: Davidson, Ken; Li, Jia; Klemick, Heather Subject: RE: RIA uses 2013 SCC Numbers

Again, sorry for being so detailed about this.

From: Shouse, Kate

Sent: Wednesday, February 18, 2015 12:00 PM

To: Marten, Alex; Sherwood, Todd

Cc: Davidson, Ken; Li, Jia; Klemick, Heather Subject: RE: RIA uses 2013 SCC Numbers



From: Marten, Alex

Sent: Tuesday, February 17, 2015 11:31 AM

To: Sherwood, Todd; Shouse, Kate

Cc: Davidson, Ken; Li, Jia; Klemick, Heather Subject: Re: RIA uses 2013 SCC Numbers

Hi Todd,



Kate, what do you think?

- -

Alex Marten

marten.alex@epa.gov

From: Sherwood, Todd

Sent: Tuesday, February 17, 2015 10:59 AM

To: Marten, Alex; Shouse, Kate

Cc: Davidson, Ken; Li, Jia; Klemick, Heather **Subject:** RE: RIA uses 2013 SCC Numbers

Alex/Kate,



Thank you.

Todd

From: Marten, Alex

Sent: Tuesday, February 17, 2015 10:18 AM

To: Shouse, Kate

Cc: Sherwood, Todd; Davidson, Ken; Li, Jia; Klemick, Heather

Subject: Re: RIA uses 2013 SCC Numbers



I'm happy to discuss this further.

- -

Alex Marten

marten.alex@epa.gov

From: Shouse, Kate

Sent: Tuesday, February 17, 2015 9:43 AM

To: Marten, Alex

Cc: Sherwood, Todd; Davidson, Ken; Li, Jia; Klemick, Heather

Subject: Fwd: RIA uses 2013 SCC Numbers

EX5

Thanks, Kate

----- Forwarded message -----

From: Shouse, Kate < Shouse.Kate@epa.gov > Date: Tue, Feb 17, 2015 at 9:29 AM Subject: Fwd: RIA uses 2013 SCC Numbers

To: Kate Shouse Ex 6 - Kate Shouse

Sent from my iPhone

Begin forwarded message:

From: "Sherwood, Todd" <<u>sherwood.todd@epa.gov</u>>

Date: February 17, 2015 at 9:16:20 AM EST

To: "Davidson, Ken" < Davidson.Ken@epa.gov >, "Li, Jia" < Li.Jia@epa.gov >,

"Shouse, Kate" <<u>Shouse.Kate@epa.gov</u>>
Cc: "Choi, David" <<u>Choi.David@epa.gov</u>>
Subject: FW: RIA uses 2013 SCC Numbers

The issue here is as follows:

Ex 5

Ex 5

From: James.MacIsaac@dot.gov [mailto:James.MacIsaac@dot.gov]

Sent: Friday, February 13, 2015 5:17 PM

To: Choi, David; Davidson, Ken; Sherwood, Todd

Cc: Spears, Matthew; Moulis, Charles; james.tamm@dot.gov;

Analiese.Marchesseault@dot.gov; ryan.hagen@dot.gov; rebecca.yoon@dot.gov;

<u>Coralie.Cooper@dot.gov; Kevin.Green@dot.gov; Don.Pickrell@dot.gov; Ryan.Keefe@dot.gov; Walter.Gazda@dot.gov; russell.krupen@dot.gov;</u>

megan.brown@dot.gov

Subject: FW: RIA uses 2013 SCC Numbers

David, Todd, & Ken,



Thanks,

James D. MacIsaac Jr. (Jamie)

General Engineer

Fuel Economy Division, NVS-132

Office of International Policy, Fuel Economy & Consumer Programs

U.S. Department of Transportation

National Highway Traffic Safety Administration (NHTSA)

West Building, W43-444

1200 New Jersey Ave, SE

Washington, DC 20590

Tel: (202) 366-9108

Fax: (202) 493-2990

james.macisaac@dot.gov

www.NHTSA.gov

From: Riley-Gilbert, Marybeth [mailto:Marybeth.Riley-Gilbert@icfi.com]

Sent: Wednesday, February 11, 2015 2:50 PM

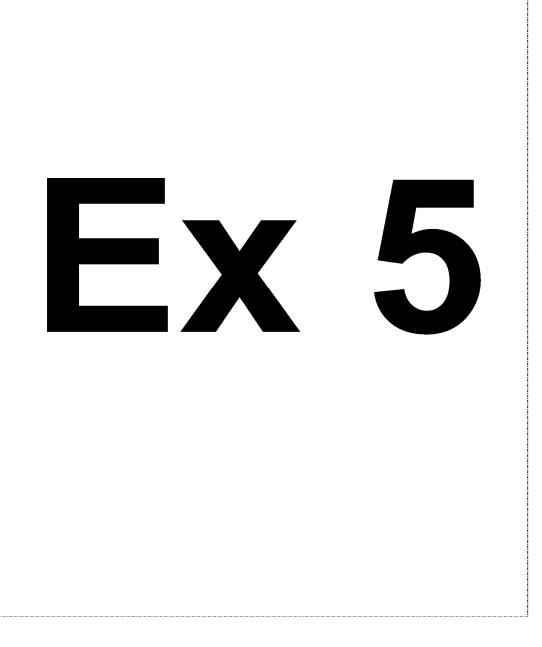
To: Hagen, Ryan (NHTSA); MacIsaac, James (NHTSA); Venezia, John

Cc: Powers, Sarah; Diller, Elizabeth; Cooper, Coralie (VOLPE); Krupen, Russell

(NHTSA); Brown, Megan (NHTSA); Marchesseault, Analiese (NHTSA)

Subject: RE: RIA uses 2013 SCC Numbers

Hi All-



<SCC calculation example for Alex Marten & Kate Shouse_20150223.xlsx>

To: Evans, DavidA[Evans.DavidA@epa.gov]; Shadbegian, Ron[Shadbegian.Ron@epa.gov];

Ferris, Ann[Ferris.Ann@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Wed 2/18/2015 9:16:40 PM

Subject: RE: Heritage study on job loss due to CPP

2015 02 18 Heritage Foundation employment study breifing material.docx

Here is my suggestion. There are still a few outstanding issues to clean up.

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Evans, DavidA

Sent: Wednesday, February 18, 2015 3:50 PM To: Marten, Alex; Shadbegian, Ron; Ferris, Ann Subject: RE: Heritage study on job loss due to CPP

Non-Responsive

Non-Responsive

From: Marten, Alex

Sent: Wednesday, February 18, 2015 3:24 PM

To: Shadbegian, Ron; Ferris, Ann; Evans, DavidA **Subject:** RE: Heritage study on job loss due to CPP

Non-Responsive

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Shadbegian, Ron

Sent: Wednesday, February 18, 2015 2:53 PM To: Ferris, Ann; Marten, Alex; Evans, DavidA Subject: RE: Heritage study on job loss due to CPP

Non-Responsive

Minus Ann W – she was added by accident.

Ron

From: Ferris, Ann

Sent: Wednesday, February 18, 2015 2:43 PM

To: Shadbegian, Ron; Marten, Alex; Evans, DavidA; Wolverton, Ann

Subject: FW: Heritage study on job loss due to CPP

Here are some first draft thoughts. Please revise, edit, etc. as you see fit. Once we have an NCEE draft we can circulate back to the group. Thanks, Ann 564-3207 From: Shadbegian, Ron Sent: Wednesday, February 18, 2015 12:26 PM To: Kaufman, Kathy; Barron, Alex; Marten, Alex; McGartland, Al; Evans, DavidA; Wolverton, Ann; Ferris, Ann Cc: Kurlansky, Ellen Subject: RE: Heritage study on job loss due to CPP Sure. From: Kaufman, Kathy Sent: Wednesday, February 18, 2015 12:25 PM To: Shadbegian, Ron; Barron, Alex; Marten, Alex; McGartland, Al; Evans, DavidA; Wolverton,

Ann; Ferris, Ann **Cc:** Kurlansky, Ellen

Subject: RE: Heritage study on job loss due to CPP

Ron, can we also see what you come up with? We might have some general points to add.

From: Shadbegian, Ron

Sent: Wednesday, February 18, 2015 12:08 PM

To: Barron, Alex; Marten, Alex; McGartland, Al; Evans, DavidA; Wolverton, Ann; Ferris, Ann

Cc: Kurlansky, Ellen; Kaufman, Kathy

Subject: RE: Heritage study on job loss due to CPP

Sure. We'll have something to you by COB today.

Ron

From: Barron, Alex

Sent: Wednesday, February 18, 2015 11:58 AM

To: Marten, Alex; Shadbegian, Ron; McGartland, Al; Evans, DavidA; Wolverton, Ann; Ferris,

Ann

Cc: Kurlansky, Ellen; Kaufman, Kathy

Subject: RE: Heritage study on job loss due to CPP

OCIR has asked that we pull together a very short Q&A for the Administrators budget hearing on this.

Non-Responsive

Non-Responsive

Cc'ing OAR folks in case they already did something on the earlier Heritage work.

Alex

From: Marten, Alex

Sent: Wednesday, February 18, 2015 11:43 AM

To: Barron, Alex; Shadbegian, Ron; McGartland, Al; Evans, DavidA; Wolverton, Ann; Ferris,

Ann

Subject: RE: Heritage study on job loss due to CPP

Non-Responsive

Alex L. Marten

phone: <u>(202)</u> 566-2301

email: marten.alex@epa.gov

From: Barron, Alex

Sent: Wednesday, February 18, 2015 11:10 AM

To: Marten, Alex; Shadbegian, Ron; McGartland, Al; Evans, DavidA; Wolverton, Ann; Ferris,

Ann

Subject: RE: Heritage study on job loss due to CPP

And can we tell if

Non-Responsive

From: Marten, Alex

Sent: Wednesday, February 18, 2015 10:59 AM

To: Barron, Alex; Shadbegian, Ron; McGartland, Al; Evans, DavidA; Wolverton, Ann; Ferris,

Ann

Subject: RE: Heritage study on job loss due to CPP

Non-Responsive

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Barron, Alex

Sent: Wednesday, February 18, 2015 10:58 AM

To: Marten, Alex; Shadbegian, Ron; McGartland, Al; Evans, DavidA; Wolverton, Ann; Ferris,

Ann

Subject: RE: Heritage study on job loss due to CPP

What's the date on the original study?

From: Marten, Alex

Sent: Wednesday, February 18, 2015 10:55 AM

To: Shadbegian, Ron; Barron, Alex; McGartland, Al; Evans, DavidA; Wolverton, Ann; Ferris,

Ann

Subject: RE: Heritage study on job loss due to CPP

Alex, you are correct about that. It's based on the SCC

Ex 5

Non-Responsive

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Shadbegian, Ron

Sent: Wednesday, February 18, 2015 10:52 AM

To: Barron, Alex; McGartland, Al; Marten, Alex; Evans, DavidA; Wolverton, Ann; Ferris, Ann

Subject: RE: Heritage study on job loss due to CPP Ann F and I are looking into this now. Ron From: Barron, Alex Sent: Wednesday, February 18, 2015 10:47 AM To: McGartland, Al; Marten, Alex; Evans, DavidA; Wolverton, Ann; Ferris, Ann; Shadbegian, Ron Subject: RE: Heritage study on job loss due to CPP Is this simply taking an analysis from before we proposed the rule Non-Responsive and then disaggregating it state by state,? If so, I should let the comms Non-Responsive folks know. Alex From: McGartland, Al Sent: Wednesday, February 18, 2015 10:40 AM

To: Barron, Alex; Marten, Alex; Evans, DavidA; Wolverton, Ann; Ferris, Ann; Shadbegian, Ron

Subject: Heritage study on job loss due to CPP

http://dailysignal.com/2015/02/17/study-obamas-carbon-rules-could-cost-thousands-ofmanufacturing-jobs-in-yourstate/?utm_source=heritagefoundation&utm_medium=email&utm_campaign=morningbell&mkt_tok=3RkMMJ

 $\underline{http://thf_media.s3.amazonaws.com/2014/pdf/IB4158.pdf}$

To: Shouse, Kate[Shouse.Kate@epa.gov]

Cc: Sarofim, Marcus[Sarofim.Marcus@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Wed 2/18/2015 2:34:01 PM Subject: RE: SCC RTC Comments

No worries. At least it was in the last link of the review chain.

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Wednesday, February 18, 2015 9:33 AM

To: Marten, Alex Cc: Sarofim, Marcus

Subject: Re: SCC RTC Comments

Oh no, this is my mistake. Looks like I sent the wrong file to Marcus, so I think the version attached is an old one with new comments from Marcus. I will compare as soon as I get back to my desk and see whether Marcus' comments are applicable to current draft. Really, really sorry about this. Significant sleep deprivation is catching up with me.

Sent from my iPhone

On Feb 18, 2015, at 9:14 AM, "Marten, Alex" < Marten. Alex@epa.gov > wrote:

Hi Marcus,

Did you mean to attach another file? This seems to be an earlier version.

The one Charles sent around Friday had the name '2015 02 07 SCC RTC

Clean for Interagency Review_aw_jl_sn_cg.docx'.

Thanks.

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Sarofim, Marcus

Sent: Monday, February 16, 2015 3:21 PM

To: Shouse, Kate; Griffiths, Charles; Newbold, Steve; Marten, Alex; Li, Jia

Cc: Wolverton, Ann

Subject: RE: SCC RTC Comments

Hi all,

I've added my comments to a version that Kate worked on. I mostly concentrated on the climate science sections. Who is next?

-Marcus

Marcus C. Sarofim, PhD phone: 202-343-9993 WJC East 4410M Environmental Scientist Climate Science & Impacts Branch

From: Shouse, Kate

Sent: Friday, February 13, 2015 8:49 AM

To: Griffiths, Charles; Newbold, Steve; Marten, Alex; Li, Jia; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: Re: SCC RTC Comments

Yes, thanks, Charles!

From: Griffiths, Charles

Sent: Friday, February 13, 2015 7:52 AM

To: Newbold, Steve; Marten, Alex; Li, Jia; Shouse, Kate; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: RE: SCC RTC Comments

Enclosed are my comments on the RTC. I focused on Section 2, but I made a few comments in other places as well.

I think that Kate is up next, right?

Charles

Charles Griffiths
National Center for Environmental Economics
Room 4334B, WJC West, Mail Code 1809T
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Phone: 202/566-2288 Fax: 202/566-2338 Email: griffiths.charles@epamail.epa.gov

From: Newbold, Steve Sent: Wednesday, February 11, 2015 9:34 AM To: Marten, Alex; Griffiths, Charles; Li, Jia; Shouse, Kate; Sarofim, Marcus Cc: Wolverton, Ann Subject: RE: SCC RTC Comments
Hi Alex,
My comments are included in the attached version. Ex 5
Ex 5
I made some minor-ish suggestions for wording changes here and there, and I included a few substantive comments in comment bubbles. Some of these have no associated in-line text edit suggestion Ex 5
So please just consider these and let me know if you want to talk about any of them further.
I've also attached the two papers by Arrow et al plus my own notes on the RFF discounting conference as supporting material for my comment on p 23, and a brief note in the file "SCC_mean_vs_median.pdf" as supporting material for my comment on p 25. (My conclusion in this note is probably an obvious one, but I still found it useful if only for my own purposes to write this out explicitly.)
Thanks,

Steve Newbold U.S. EPA
National Center for Environmental Economics (NCEE) EPA West, 4316T, MC 1809T 1200 Pennsylvania Ave NW

Washington, DC 20004 (202) 566-2293

From: Marten, Alex

Sent: Tuesday, February 10, 2015 3:24 PM

To: Griffiths, Charles; Newbold, Steve; Li, Jia; Shouse, Kate; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: RE: SCC RTC Comments

That sounds like a great plan. Thank you!

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Griffiths, Charles

Sent: Tuesday, February 10, 2015 2:37 PM

To: Newbold, Steve; Marten, Alex; Li, Jia; Shouse, Kate; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: RE: SCC RTC Comments

How about if Steve takes his turn tomorrow and I'll take Thursday.

Charles Griffiths

National Center for Environmental Economics Room 4334B, WJC West, Mail Code 1809T U.S. Environmental Protection Agency 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460

Phone: 202/566-2288 Fax: 202/566-2338 Email: griffiths.charles@epamail.epa.gov

From: Newbold, Steve

Sent: Tuesday, February 10, 2015 2:16 PM

To: Marten, Alex; Li, Jia; Shouse, Kate; Griffiths, Charles; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: RE: SCC RTC Comments

I can start working on it tomorrow morning (or possibly this eve if someone else wants to take a quick crack at it first)

From: Marten, Alex

Sent: Tuesday, February 10, 2015 2:13 PM

To: Li, Jia; Shouse, Kate; Griffiths, Charles; Newbold, Steve; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: RE: SCC RTC Comments

Charles, Steve, Marcus, Kate any takers on the pen?

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Li, Jia

Sent: Tuesday, February 10, 2015 1:19 PM

To: Marten, Alex; Shouse, Kate; Griffiths, Charles; Newbold, Steve; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: Re: SCC RTC Comments

Passing on my comments on top of Ann's for the next reviewer.

Thanks!

Jia

From: Marten, Alex

Sent: Monday, February 9, 2015 6:16 PM

To: Li, Jia; Shouse, Kate; Griffiths, Charles; Newbold, Steve; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: RE: SCC RTC Comments

OK I think I may have figured it out. Jai try going into:

Options->Trust Center->Trust Center Settings->Privacy Options

And then uncheck the box "Remove personal information from file properties on save"

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Li, Jia

Sent: Monday, February 09, 2015 5:59 PM

To: Marten, Alex; Shouse, Kate; Griffiths, Charles; Newbold, Steve; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: RE: SCC RTC Comments

Alex:

Thanks! I have started the review and can add my comments to the version with Ann's comments next. One quick question: I noticed that the document automatically revert all changes to a generic "author" when saving changes to the document. Do you want us to identify ourselves in case you need to clarify or follow up on individual comments or edits? If so, any suggestion on how to change the option setting to do that? This may not be so important but will just be a little hard to keep track of different people's comments.

Jia

From: Marten, Alex

Sent: Monday, February 09, 2015 5:49 PM

To: Shouse, Kate; Li, Jia; Griffiths, Charles; Newbold, Steve; Sarofim, Marcus

Cc: Wolverton, Ann

Subject: SCC RTC Comments

Hi All,

I believe this is the correct list of staff who might be interested in reviewing the draft RTC. To avoid having to merge different sets of comments I am hoping we can stage the review. Ann took a first crack at this today and has added her comments in the attached. I believe Jia has the pen next.

I would like to have the staff review done by next Wednesday (2/18)

COB to have time for management review. That gives one work day per person to get through this which should be enough as we are

Ex 5
Ex 5
the large time commitment that is already in this version. Please focus on issues related to technical accuracy of the way in which the comments are represented and the response.

Thank you.

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

To: Li, Jia[Li.Jia@epa.gov]

Cc: Shouse, Kate[Shouse.Kate@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Mon 2/9/2015 11:09:11 PM
Subject: RE: questions on rtc document

Hi Jai,

I am going to take your questions in stages.



- Yes this current version should be considered nearly final being reviewed for technical accuracy. I would suggest that inconsistences fall into this category and we would really want to know about them. The background on the first two pages and the "introduction" section should be considered the most set, as the current version has undergone management review already.

Ex 5

Ex 5

Sorry for any confusion.

- -

Alex L. Marten

phone: <u>(202) 566-2301</u> email: <u>marten.alex@epa.gov</u> From: Li, Jia

Sent: Monday, February 09, 2015 5:53 PM

To: Marten, Alex **Cc:** Shouse, Kate

Subject: questions on rtc document

Hi Alex:

I am currently reviewing the RtC and have a couple of questions. Ex 5

Ex 5

Ex 5

I also just saw your email regarding the guidance for review. Ex 5

Many thanks!

To: Snyder, Brett[Snyder.Brett@epa.gov]

Cc: Newbold, Steve[newbold.steve@epa.gov]; McGartland, Al[McGartland.Al@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Mon 2/9/2015 5:12:56 PM

Subject: RE: Some news on the personnel front - visiting scholars X2

Hi Brett,

That is great news that Mark will be joining us.

Ex 5

Thanks.

- -

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

From: Snyder, Brett

Sent: Friday, February 06, 2015 3:44 PM

To: OP-NCEE-Everyone

Subject: Some news on the personnel front - visiting scholars X2

Hi - we have been working on establishing new temporary assignments for two visiting scholars, and the administrative processes for each have reached the point where we can more widely share some of the particulars with staff.

1. We are negotiating with the University of Central Florida to <u>establish a detail assignment for Dr. Mark Dickie</u> to work with NCEE on a temporary assignment designed to last for 12-13 months and starting this coming June. His department and provost are supportive of the arrangement, and we are working out the particulars on the cost sharing arrangement with the university HR and finance offices. Because the university is able to partially finance his salary/benefits during his detail assignment, this has helped to make the arrangement feasible to establish with our office. Mark enjoyed his visit to NCEE in early January and we agreed that his research and interests dovetailed nicely with our own efforts to make further progress in health benefits methods and estimation. As we make further progress on the agreement and approach his start date, I expect we will make some additional efforts to share information with Mark to help prepare him to readily join in on some of our ongoing projects.

Our arrangement with Mark will likely end up serving to fill the "post-doctorate" position that we had been looking to fill, and for which we invited several candidates to interview with us late last year. Our budget and priorities are close to being settled upon, having briefed both OP and AO senior management on our FY15 Work Plans over the past couple of weeks. Because of limited resources (contracts and salary) it seems likely that Mark's detail assignment will consume the resources available for a temporary appointment of the kind envisioned for a new post-doctorate position. If these conditions should change, we may revisit our options and resume efforts to seek candidates. But at this time, we have no plans to continue our search, and will be notifying the other applicants we interviewed of this outcome.

2. We have received final approval to serve as a host for a short-term detail assignment for Professor Arden Rowell, University of Illinois School of Law (@ Urbana-Champaign). Her detail assignment will start next week and conclude on March 20. Arden has arranged the detail assignment with the Law School's permission and they are fully financing her salary/benefits during her detail assignment with NCEE. Arden has pursued several topics in the field of environmental economics and law. We hope to both learn more about her own work as well as provide her with some insights into our own research and analytic efforts undertaken in support of EPA's regulatory policies and programs. I have attached her CV and a 1-page statement of objectives which provides some further specifics on the topics of interest to her. We will arrange for Arden to give some brownbag presentations on her own work, including perhaps a preview of a presentation she is scheduled to deliver at one of the developmental workshops at this year's Society for Benefit Cost conference in DC next month (March 19-20). We also appreciate your suggestions on which staff working in the program offices we should try to introduce her to during her brief stay in order to further enrich her experience. She will be sitting in Elizabeth's cubicle (4316-S) and we will bring her around for introductions next week.

Thanks again, and we greatly appreciate everyone's time and effort spent in participating in our

recruiting efforts these past couple of months.

Brett Snyder

USEPA, NCEE

202-566-2261

Sent: Fri 2/6/2015 3:19:21 PM Subject: charge - discounting question

What do you think of this? Ex 5

Ex 5

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

To: Shouse, Kate[Shouse.Kate@epa.gov]

Bcc: alex.marten Ex 6 - Alex Marten

From: Marten, Alex

Sent: Tue 2/3/2015 6:29:03 PM

Subject: RE: on a call - looking at interim, almost done (eom)

AB and I came up w/ this. What do you think?

Ex 5

- -

Alex L. Marten

phone: (202) 566-2301 email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Tuesday, February 03, 2015 1:28 PM

To: Marten, Alex

Subject: on a call - looking at interim, almost done (eom)

From: Marten, Alex

Sent: Tuesday, February 03, 2015 1:20 PM **To:** Shouse, Kate; Fawcett, Allen; Barron, Alex

Cc: McGartland, Al

Subject: RE: 2015 02 02 SCC RTC intro draft.docx



80

Ex 5

- -

Alex L. Marten

phone: <u>(202)</u> 566-2301

email: marten.alex@epa.gov

From: Shouse, Kate

Sent: Tuesday, February 03, 2015 1:11 PM **To:** Fawcett, Allen; Barron, Alex; Marten, Alex

Cc: McGartland, Al

Subject: RE: 2015 02 02 SCC RTC intro draft.docx



Thanks, Kate

From: Fawcett, Allen

Sent: Tuesday, February 03, 2015 12:50 PM **To:** Barron, Alex; Marten, Alex; Shouse, Kate

Cc: McGartland, Al

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

We're working on edits now, Kate will send shortly.

From: Barron, Alex

Sent: Tuesday, February 03, 2015 12:47 PM

To: Marten, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Oar -

Do you have feedback?

From: Marten, Alex

Sent: Tuesday, February 03, 2015 12:38 PM

To: Barron, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: RE: 2015 02 02 SCC RTC intro draft.docx

Ex 5

Ex 5

- -

Alex L. Marten

phone: <u>(202)</u> 566-2301

email: marten.alex@epa.gov

From: Barron, Alex

Sent: Tuesday, February 03, 2015 12:18 PM

To: Marten, Alex; Shouse, Kate **Cc:** McGartland, Al; Fawcett, Allen

Subject: 2015 02 02 SCC RTC intro draft.docx

Ex 5

To: Roberts, Martha[Roberts.Martha@epa.gov]; Evans, DavidA[Evans.DavidA@epa.gov]; Elman,

Barry[Elman.Barry@epa.gov]; Sheriff, Glenn[Sheriff.Glenn@epa.gov]

From: Marten, Alex

Sent: Tue 1/20/2015 2:11:05 AM
Subject: Re: Mass design issues memo

2015 01 19 mass-based implementation memo.docx

Thanks for starting this Martha.

Non-Responsive

Non-Responsive

- -

Alex Marten marten.alex@epa.gov

From: Roberts, Martha

Sent: Wednesday, January 14, 2015 7:38 PM

To: Evans, DavidA; Elman, Barry; Marten, Alex; Sheriff, Glenn

Subject: RE: Mass design issues memo

Hi all,

Non-Responsive

Non-Responsive

Thanks!

Martha

From: Evans, DavidA

Sent: Monday, January 12, 2015 6:39 PM

To: Elman, Barry; Marten, Alex; Roberts, Martha; Sheriff, Glenn

Subject: RE: Mass design issues memo

Minus Alex B.

Barry raises that we haven't taken this task on yet. Of course, Joel gave us some additional context/ideas for thinking about what the memo is to accomplish. I have something I really want to get done on (b) tomorrow, but hope to turn to this. Anyone else thinking about it/planning on working on it?

Dave

From: Barron, Alex

Sent: Tuesday, December 23, 2014 6:09 PM

To: Evans, DavidA; Elman, Barry; Marten, Alex; Roberts, Martha; Sheriff, Glenn

Subject: Mass design issues memo

So, I am about to head off but I am hoping folks could take a crack at pulling together a short memo along these lines while I am away (share a draft with Joel for feedback as soon as you have one ready). Basically, I was thinking something like this:

Non-Responsive



Alex